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Thomas P. Foran

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REMARKS

Applicant appreciates the attention of the Examiner to the application. The Office Action of the Examiner of November 17, 2005 has been reviewed with care in the preparation of this response. The amendment above and the following remarks are believed to be fully responsive to this action.

Status of Claims

Claims 8, 9, 12, 14-17, and 19-29 are pending. Claims 1-7, 10-11, 13 and 18 have been cancelled, claims 1-7 having been cancelled without prejudice or disclaimer following an election pursuant to a restriction requirement by the Examiner. Applicant appreciates the indication of allowable subject matter in claims 17, 20, 24 and 25. The pending claims set forth a novel and non-obvious vial preferably for use in a level. Reconsideration and allowance of all pending claims is respectfully requested in view of the above amendment and the following remarks.

Claims 8, 9, 12, 14-16, 19 and 21-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Keller (EP 455979) in view of Vouillot (FR 2785984) and Szumer (U.S. Pub. No. 2002/0124425).

Applicant thanks the Examiner for the telephonic interview with counsel on February 7, 2006. A discussion was held during this interview regarding the present Office Action and possible amendment to certain of the pending claims, in particular to independent claims 8 and 15. In response to this discussion and the comments made by the Examiner, Applicant has prepared and hereby submits the above amendment to the claims.

The proposed amendment amends claims 8, 15, 16 and 22 and adds new claims 26-29. This amendment is fully supported by the specification to the application and does not include any new matter. Applicant now turns to the particular points raised by the Examiner in the Office Action of November 17, 2005.

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Rejection of Claims 8, 9, 12, 14 and 21-22 under 35 U.S.C. §103(a)

Independent claim 8 has been amended to clarify the patentability of Applicant's novel invention. Claim 8, as amended, requires that the vial have a sleeve that is molded around and onto the outer surface of the sidewall of a cylinder and have indicia positioned on the outer surface of the cylinder that are bounded by the cylinder and the sleeve. Claims 9, 12, 14 and 21-22 depend from claim 8.

Obviousness under 35 U.S.C. §103(a) can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Jones*, 958 F.2d 347 (Fed. Cir. 1992). In addition, any such combination or modification of the prior art must still teach or suggest each and every one of the claim limitations. MPEP §2143.

Keller clearly does not teach or suggest a vial formed with a sleeve molded around and onto the outer surface of a cylinder. This limitation is furthermore not disclosed by either Vouillot or Szumer.

Although Vouillot is directed to a process for molding a body of a level upon two measuring vials, the reference teaches against overmolding around and onto the outer surface of the sidewall of either one or both vial bodies. Vouillot discloses instead that the vials are placed in the mold against plates used to both retain the vials and "limit the contact surfaces with the material that will be injected ..." (Vouillot at page 1, ¶ 8). At the very least, retaining the vials in such a manner is necessary so that two planar surfaces of the sidewalls of the vials (surfaces 3a, 3b on the vertical measuring vial and surfaces 2c, 2d on the horizontal measuring vial) are positioned to be parallel to the longitudinal planes of the level's molded body and thereby not contacted by the injected material so that they constitute the reading surfaces of the vials in the level. (Vouillot at page 2, ¶ 6; FIGS. 1-3). The plates are also disclosed as being needed to limit the surfaces contacted by the material injected into the mold to prevent the vials "from being deformed or to prevent the stopper from being jammed in due to the action of pressure and/or temperature." (Vouillot at page 4, ¶ 1).

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Moreover, a sleeve overmolded around and onto the outer surface of the vials is not needed in Vouillot. Measuring clips are the only indicia present on the vials and these are inserted into the tubular cavities of the vials. With an absence of indicia on the outer surface of the vials' sidewall, there is no reason, therefore, in providing a molded sleeve to bound and thereby protect the indicia between it and the vial.

There is also no showing in the present Office Action of any reasons or motivation within Keller or Vouillot or Szumer themselves to support the combination and modification relied upon by the Examiner for the rejection of claim 8. For the Examiner to simply call upon the subjective basis of engineering expediency, i.e. the substitution of an overmolding process for the more expensive step of insertion and fixing, in order to provide the necessary motivation for the selection and modification of the references he relies upon is not the specific and objective explanation required to be set forth under MPEP §706.02(j) but rather an exercise in hindsight.

An examiner may not simply select from the prior art the separate components of the claimed invention through the use of the blueprint supplied by the inventor. Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 227 USPQ 543 (Fed. Cir. 1985). The act of identifying the various elements of the claimed invention in the prior art without there being any teaching, suggestion or motivation for their combination is not the legal test of obviousness. It is, after all, well recognized that most, if not all, inventions are no more than combinations of old elements in the prior art. Environmental Designs, Ltd. V. Union Oil Co., 713 F. 2d 693, 218 USPQ 865 (Fed. Cir. 1983); Richdel, Inc. V. Sunspool Corp., 714 F. 2d 1573, 219 USPQ 8 (Fed. Cir. 1983). "If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.' Sensonics, Inc. v. Aerosonic Corp., 81 F. 3d 1566, 1570, 38 USPQ 2d 1551, 1554 (Fed. Cir. 1996)." In re Rouffet, 47 USPQ 2d at 1457 (Fed. Cir. 1998).

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In addition, Keller teaches against modifying its spirit vial in the manner suggested. To do so would create a vial that requires the marking rings to be inserted by hand into the hole or cavity of the vial as disclosed by Vouillot. This step is specifically described in Keller, however, as being both demanding and not cost-effective. (Keller at page 1, ¶ 2). Even though that reference urges instead that the rings be printed on the outside wall of the vial, the overmolding process taught by Vouillot with its limitation on the surfaces contacted by the injected material would leave these rings exposed to potential damage, a risk avoided in Keller by having the vial inserted and secured within the hole of a separately molded article. (Keller at page 2, ¶ 1).

Claim 22, as amended, requires the additional limitation that the inner surface of the overmolded cylinder is machined to form a cavity having a desired shape. None of the references cited in the Office Action disclose this particular feature. In addition, there is no suggestion or motivation found in these references to justify any combination or modification for purposes of producing such a feature. Keller, in particular, frowns upon any machining of its cavity as "a demanding additional machining process" that lacks simplicity and cost-effectiveness. (Keller at page 1, ¶ 2). Moreover, the overmolding process taught by Vouillot leaves the vial incapable of having its cavity modified through additional machining. It is for this reason that the cavities in its vials are filled with liquid except for one air bubble and closed off by a stopper before they are placed in the mold. (Vouillot at page 2, ¶ 5).

For each of these reasons, Applicant asks that amended claim 8 and dependent claims 9, 12, 14 and 21-22 be allowed.

Rejection of Claims 15-16, 19 and 23 under 35 U.S.C. §103(a)

Independent claim 15 has also been amended to clarify the patentability of Applicant's novel invention. Claim 15, as amended, requires that the vial include a second material molded around and onto the outer surface of the sidewall of a cylinder to form an overmolded body with the inner surface of the body being machined to form a cavity having a desired shape. Claims 16-17, 19-20 and 23-25 depend from claim 15.

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For each of the reasons set forth above with respect to the traversal of the rejection of claim 8, none of the references cited by the Examiner, alone or in combination, teach or suggest a vial having a second material molded around and onto the outer surface of the sidewall of a cylinder to form an overmolded body. The Examiner acknowledges in the Office Action that this feature is missing in Keller. Szumer also fails to disclose any overmolding process. Vouillot teaches against any overmolding around and onto the outer surface of either of its vial bodies' sidewalls since it is necessary to limit certain surfaces on these sidewalls from being contacted by the material molded onto the vials.

Likewise, none of the references, alone or in combination, teach or suggest the inner surface of the overmolded body being machined to form a cavity having a desired shape. As indicated earlier with respect to the allowability of claim 22, Keller specifically teaches against any machining of its cavity. In addition, the overmolding process taught by Vouillot leaves the vial incapable of having its cavity reformed through any subsequent machining. Nowhere in either reference is there a teaching or suggestion that modifying one or both to provide for the ability of the vial to be machined after being overmolded is needed or desirable in any way. Without a showing of such a need, the proposed modification of the vial in Keller in view of Vouillot and Szumer would be extraneous and an exercise simply in hindsight.

Amended claim 16 adds the limitation that both materials be the same and that the cylinder be maintained at a temperature less than their melting point while the second material is molded around the cylinder. While Vouillot may teach a solid vial made from a first material that is initially at a temperature below its melting point at the time a second material above that melting point is poured onto it, there is no disclosure or showing of the vial being maintained at its lower temperature throughout that process. This limitation is missing as well from Keller and Szumer.

For all of these reasons, a prima facie case of obviousness has not been established by the Examiner to maintain his specific rejections of amended claims 15 and 16. Applicant believes that these rejections should be therefore withdrawn and that independent claim 15 and each of claims 16-17, 19-20 and 23-25 that depend from it be allowed.

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New Claims

Claim 26 is a new independent claim. New claims 27-29 are dependent to claim 26. Claim 26 recites at least the requirement that a vial include a second material molded around and onto the outer surface of the sidewall of a molded body. Claim 29 includes the same limitation included in claim 17 that was found to have allowable subject matter by the Examiner. Each of these new claims therefore includes at least one element shown above not to be anticipated or made obvious by any of the references cited by the Examiner, alone or in combination, since that limitation is neither taught nor suggested in any of them. Each claim is in condition for immediate allowance.

Conclusion

Applicant's invention, as set forth in the pending claims, represents a highly novel vial as is used in levels. Applicant believes that now pending claims 8, 9, 12, 14-17, and 19-29 each have elements that are not disclosed or suggested in the prior art. Applicant respectfully submits that all rejections in the Office Action have been traversed by amendment and argument, placing the application in condition for allowance. Early favorable action is earnestly solicited. The Examiner is invited to call the undersigned if such would be helpful in resolving any issue that may remain.

Respectfully submitted,



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